FIG. 1

```
<CATname="ccs"
      <CAT name="arts"
            <cat name="music"
                  <cat name="concerts"
                        <STR field="performer,
                        <IMPurl="rf//www.ticketmaster.co
                        <IMPurl="rf//www.concerts.com
                  </CAT
            </CAT
      </CAT
      <CAT
      </CAT
      <CAT name="recreation"
      </CAT
      <CAT              ping"
            <CAT name="entertainment"
                  <CAT name="recordings"
                        <SYN word="CD" list="compact
                        <STR field="artist, album,
                        <IMPurl="rf//www.cdnow.com
                        <IMPurl="rf//www.amazon.com
                        <IMPurl="rf//www.half.com"
                  </CAT
            </CAT
      </CAT
</CAT
```

FIG

FIG. 2

```
<!-- Copyright (C) 2000 WebUnwired www.WebUnwired.com -->
<!-- CCS.dtd -->

<!-- The Category tag can contain RFI structure definitions, Synonym -->
<!-- tables and URLs pointing to content providers implementing this -->
<!-- category.  Each category must list a name and an ID field. -->
<!ELEMENT CAT ((STR?), (CAT, SYN, IMP)*)>
<!ATTLIST CAT name CDATA #REQUIRED id CDATA #REQUIRED>

<!-- The STR tag defines the relational schema for a category.  The -->
<!-- only supported data type is string and the field names are to -->
<!-- be listed as a comma separated list. -->
<!ELEMENT STR>
<!ATTLIST STR field CDATA #REQUIRED>

<!-- The IMP tag specifies the URL of the content provider that  -->
<!-- implements this category.  A category may list more than one -->
<!-- content sources as implementers of this category. -->
<!ELEMENT IMP>
<!ATTLIST IMP url CDATA #REQUIRED>

<!-- If a category contains a SYN tag, then an RFI query executed -->
<!-- against this category that uses the 'like' clause will use -->
<!-- synonyms listed here for it's matching algorithm. -->
<!ELEMENT SYN>
<!ATTLIST SYN word CDATA #REQUIRED list CDATA #REQUIRED>
```

FIG 2

```
<?xml version='1.0' encoding='us-ascii'?>
<!-- Copyright (C) 2000 WebUnwired www.WebUnwired.com -->
<!-- RESULTS.dtd -->

<!-- Top level tag... all results are contained with in a RESULTS tag. -->
<!-- A results tag can contain 0 or many SET tags, which actually contain -->
<!-- the results. -->
<!ELEMENT RESULTS (SET)*>
<!ATTLIST RESULTS query CDATA #REQUIRED>

<!-- The SET tag actually encapsulates the results. It must contain the -->
<!-- schema for the category for which the results are valid, identify -->
<!-- the schema itself, contain a unique set number, and finally 0 or 1 -->
<!-- results tag which points to the URL of the resulting content page. -->
<!ELEMENT SET (FIELD*, RESULT?)>
<!ATTLIST STR cat CDATA #REQUIRED id CDATA #REQUIRED>

<!-- The field tag identifies a field in the schema corresponding to the -->
<!-- category against which the query was executed.  It must identify -->
<!-- a value for the field or nothing if the field is not implemented. -->
<!-- Typically there will be more than one field per category. -->
<!ELEMENT FIELD (#PCDATA)>
<!ATTLIST FIELD name CDATA #REQUIRED>

<!-- If the results tag is included with in a results set, then it -->
<!-- identifies a URL pointing to a content page where the results -->
<!-- this resulting row of the query is available. -->
<!ELEMENT RESULT>
<!ATTLIST RESULT url CDATA #REQUIRED>
```

FIG 3

```
<RESULTS query="select * from ticketmaster.com:arts.music.concerts where artist='x'>
        <SET cat="1" id="1">
                <FIELD name="artist">X</FIELD>
                <FIELD name="location">San Jose</FIELD>
                <RESULT url="http://www.ticketmaster.com/aaabbbccc"/>
        </SET>
        <SET cat="1" id="2">
                <FIELD name="artist">X</FIELD>
                <FIELD name="location">New York</FIELD>
                <RESULT url="http://www.ticketmaster.com/111222333"/>
        </SET>
</RESULTS>
```
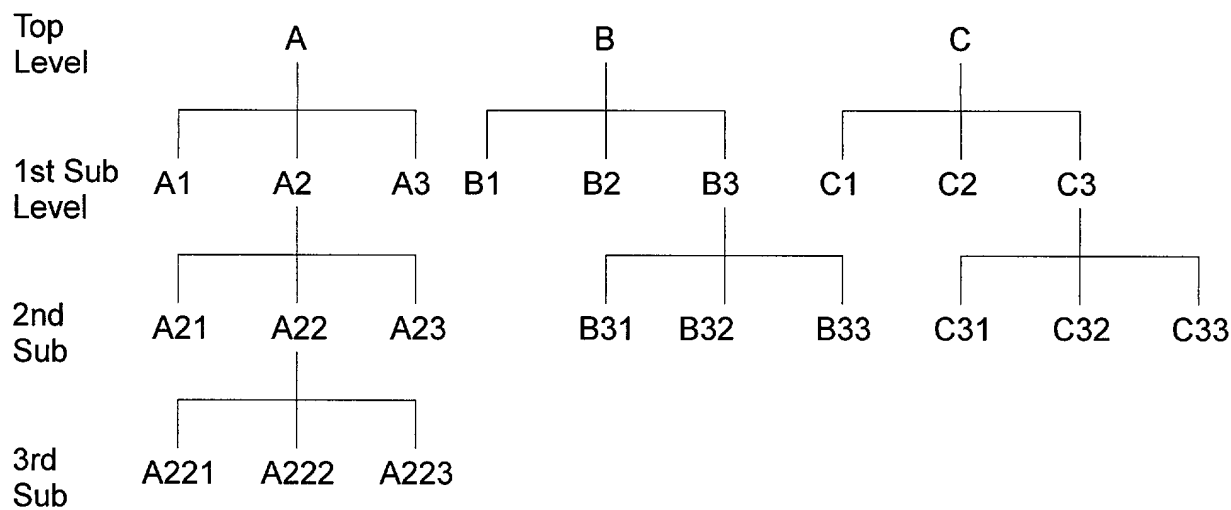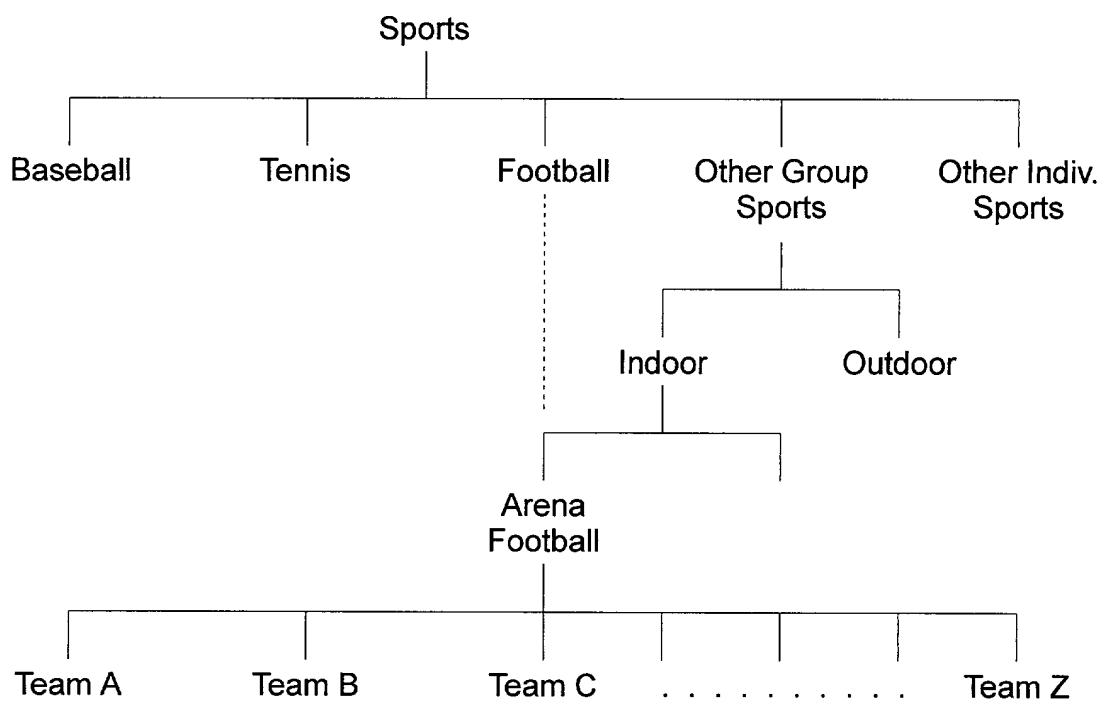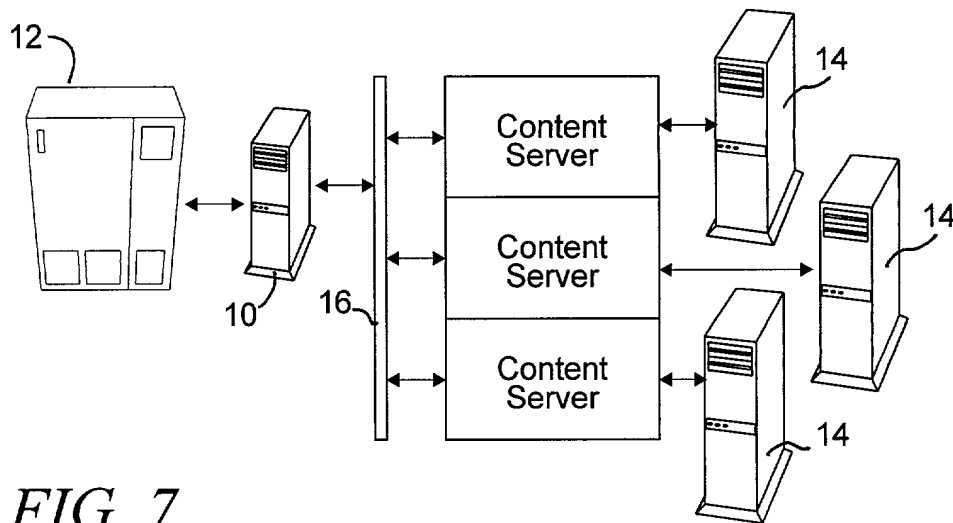
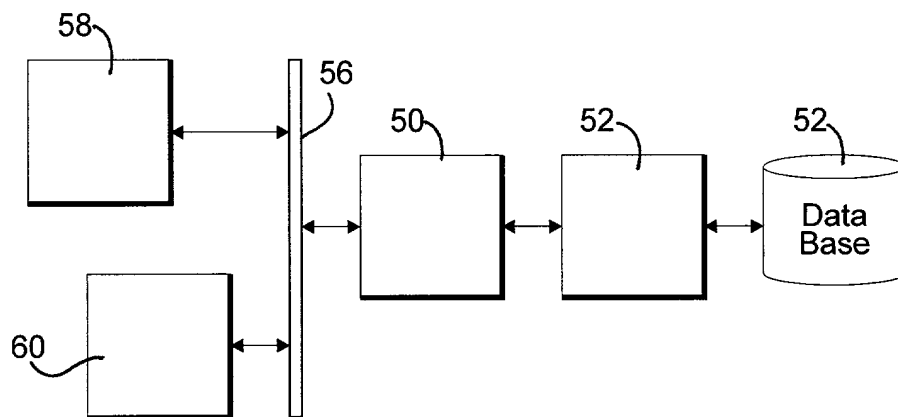**FIG 4**

Top
Level   A   B   C

1st Sub   A1   A2   A3   B1   B2   B3   C1   C2   C3
Level

2nd   A21   A22   A23   B31   B32   B33   C31   C32   C33
Sub

3rd   A221   A222   A223
Sub

FIG. 5

Sports

Baseball   Tennis   Football   Other Group   Other Indiv.
                                               Sports   Sports

                                          Indoor   Outdoor

                              Arena
                              Football

Team A   Team B   Team C   . . . .   Team Z

FIG. 6

FIG. 7

FIG. 11

FIG. 12

Start

Select
Categories

Site to
Category

Category
to Site

Collaborate

Network
Config.

20

22

26

24

| ? | | Cancel | <Back | Next> | | Finish |

FIG. 8

30 GardenTools
Indoor
Outdoor
Hand Tools
Rakes (Ace)
Shovels (Sears)
Hoes (Ace)
Power Tools
32
Saws
Chainsaws (Tool Depot)
Table Saws (Ace)
Jigsaws (Sears)
Jigsaws (Ace)

28

34
Field 1
Field 2
Field 3
Field 4
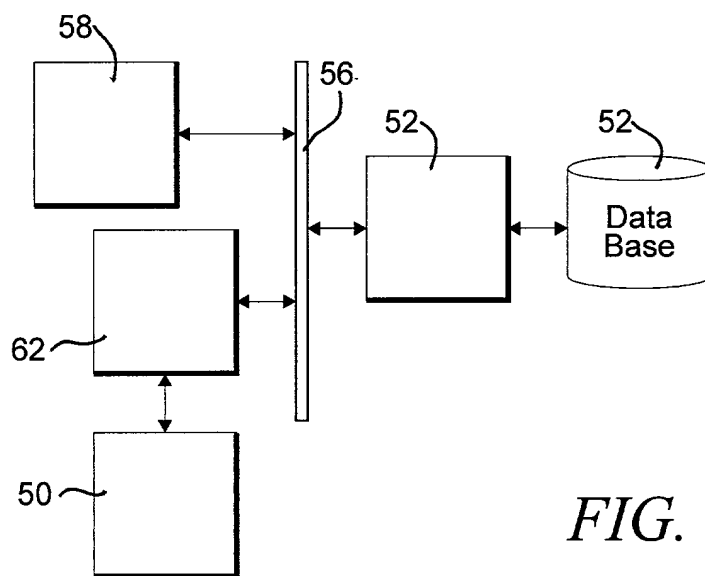Field 5
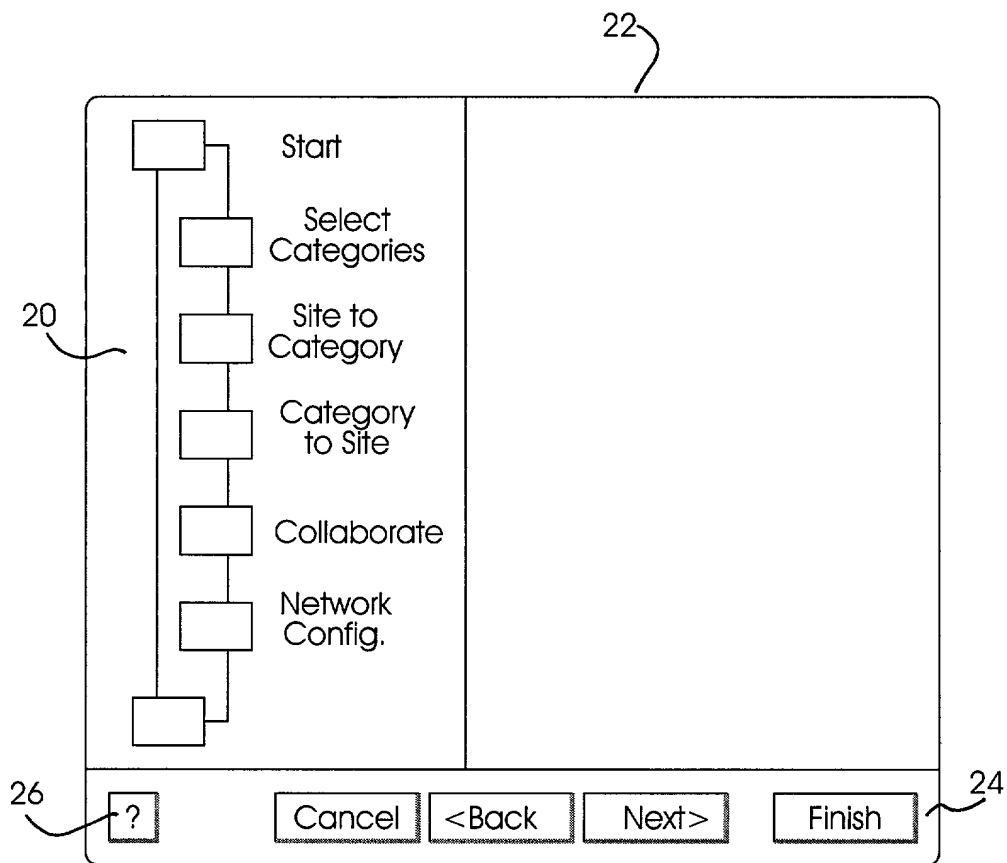
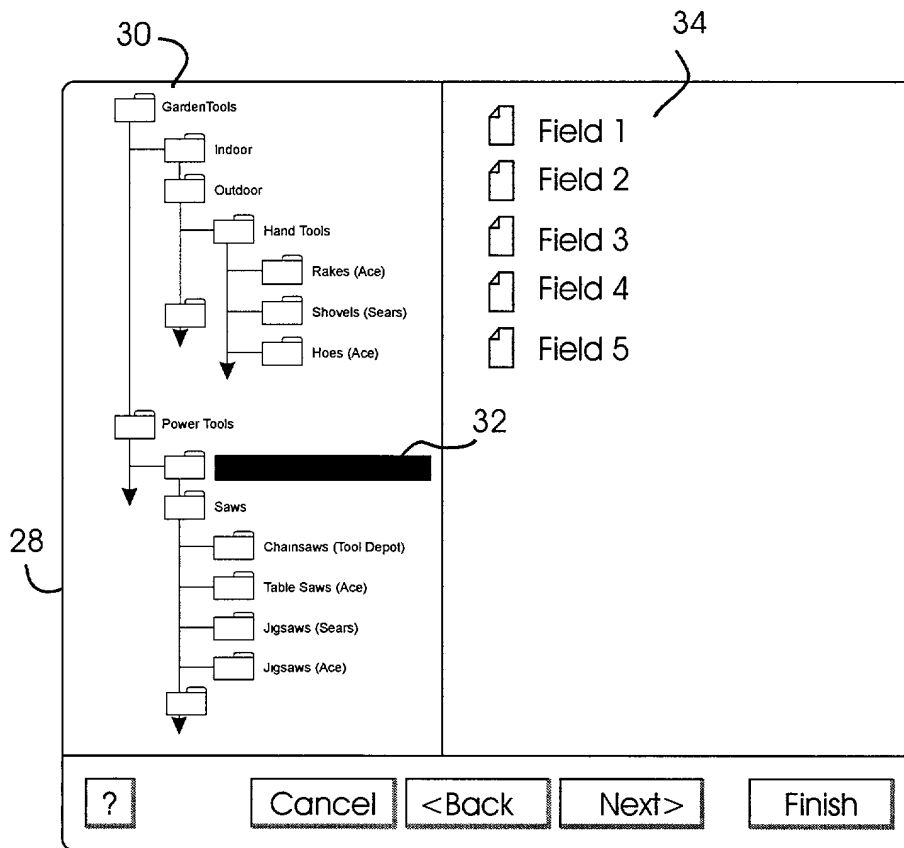| ? | | Cancel | <Back | Next> | | Finish |

FIG. 9

FIG. 10

Merlin View, Pre Release Edition, v0.8 Beta, WebUnwired Inc.

File   Services

Create a Service

Start
Service Model
New Service
Browse Service
Identify Service
Edit Service
Publish Service

Finish

Appliance Config

Document Object Model

```
<HTML VERSION="-//W3C//DTD HTML 4.0 Transitional//EN">
  <HEAD>
    <META NAME="GENERATOR" CONTENT="HTML Tidy, see www.w3.org">
    <TITLE>
       - Amazon.com--Earth's Biggest Selection
    <META NAME="KEYWORDS" CONTENT="amazon.com, amazon books, amazon, amazon.com book
  <BODY BGCOLOR="#FFFFFF" TEXT="#000000" LINK="#003399" VLINK="#996633" ALINK="#FF9933"
    <A NAME="top" SHAPE="RECT">
    <TABLE WIDTH="100%" BORDER="0" CELLSPACING="0" CELLPADDING="0">
      <TBODY>
        <TR>
          <TD ROWSPAN="1" COLSPAN="1">
            <CENTER>
              <TABLE WIDTH="590" BORDER="0" CELLSPACING="0" CELLPADDING="0" VS
                <TBODY>
                  <TR>
                    <TD ROWSPAN="2" COLSPAN="1" ALIGN="LEFT" VALIGN="BOTTOM"
                      <IMG SRC="http://g-images.amazon.com/images/G/01/nav/amazc
```

Current Selection

amazon.com.

WELCOME   STORE DIRECTORY
INTERNATIONAL | TOP SELLERS

Check out our hot deals in Electr

amazon.com.

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VIEW CART | WISH LIST | YOUR ACCOUNT | HELP

TODAY'S FEATURED STORES
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Check out our hot deals in Electronics, Lawn & Patio, Kitchen, Software, and Tools & Hardware.

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Hello. Sign in to get recommendations.
Which products did our editors and customers like
the most this year? Find out in our Best of
2000 Store.

Best of 2000

Top Sellers in Computer & Video Games

The Sims

Only 3 Days Left
to ensure delivery by December 23
using
Standard Shipping.

Holiday 2000

38

40

36

Content Recognition

Pre-process HTTP request and forward to content server

Convert content to DOM

Classify content using XML recognition rules
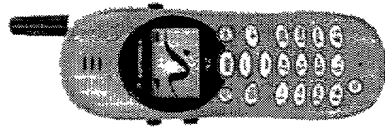
Content Mapping

Issue request for related content

Content mapping algorithms locate related content at collaborating sites

Content Fusion

Integrate related content with primary content

Format converted content to desired output format (HTML, WML, XML, PDF, tec.)

Collaborated Content to User

HTTP Request From Client

FIG. 13